DOCUMENT RESUME

ED 316 984 EC 230 040

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TITLE Technology Access for Arkansans. Think People...Think Technology.
INSTITUTION Arkansas Univ., Little Rock. Center for Research on Teaching and Learning.
SPONS AGENCY Arkansas Governor's Developmental Disabilities Planning Council, Little Rock.; Arkansas Univ., Little Rock. University-Affiliated Program.
PUB DATE 16 Aug 89
NOTE 11p.; Summary of a paper presented to the American Association on Mental Retardation/Arkansas Chapter State Meeting (Fort Smith, AR, August 16, 1989). For related documents, see EC 230 038-042.
PUB TYPE Reports - Descriptive (141) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Accessibility (for Disabled); *Assistive Devices (for Disabled); Consumer Education; *Disabilities; Electronic Equipment; *Information Dissemination; Information Needs; Needs Assessment; *Rehabilitation; State Programs; State Surveys; Technical Assistance; Technology
IDENTIFIERS *Arkansas; *Technology Access for Arkansans

ABSTRACT

Activities of the Technology Access for Arkansans (TAARK) project have focused on: (1) identifying the need and quality of technology provisions in the state; (2) disseminating information about appropriate technology and funding; (3) educating Arkansans about technology and advocacy; (4) developing a coordinated state plan; and (5) providing technical assistance to the Governor's Developmental Disabilities Planning Council. This paper summarizes activities of the Coordinated Planning Committee including analysis of 2,136 consumer surveys which indicated that more than half of the disabled respondents needed more information regarding assistive devices and services and most spent less than $1,000 per year for technology devices and services. A concomitant survey of 444 Arkansas rehabilitation professionals indicated professionals, too, felt a need for more information with 67% reporting they had received insufficient training in the area of technology and persons with disabilities. A Consumer Advisory Committee was also established with such goals as establishment of an information system, physically and programmatically accessible to all Arkansans. Finally, a proposal reflecting multi-agency and consumer involvement was prepared that delineated nine goals to address the priorities of the Consumer Committee. Screen displays used in the original presentation are attached. (DB)

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Think People... Think Technology.

University of Arkansas-Little Rock
DHS, Division of Rehabilitation Services
Arkansas Children's Hospital
Arkansas Easter Seal Society
Arkansas Special Education Resource Center
Association for Retarded Citizens/Arkansas

Funded by the Arkansas Governor's Developmental Disabilities Planning Council, the University of Arkansas at Little Rock, and The Univerity of Arkansas-University Affiliated Program.

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Summary of a paper presented to the American Association on Mental Retardation/Arkansas Chapter State Meeting, Fort Smith, Arkansas, August 16, 1989

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American Association on Mental Retardation/Arkansas Chapter
Summary of Presentation on
Technology Access for Arkansans (TAARK)

Conceptualization

The Technology Access for Arkansans (TAARK) project was initiated by 6 agencies and organizations from the public and private sectors to help break down the barriers to technology access, and to enhance the lives and opportunities of Arkansans with disabilities through the appropriate use of technology. Representatives from the University of Arkansas at Little Rock, Department of Human Services/Division of Rehabilitation Services, Arkansas Special Education Resource Center, Arkansas Children's Hospital, Arkansas Easter Seal Society, and the Association for Retarded Citizens/Arkansas developed the project. TAARK is funded by the Governor's Developmental Disabilities Planning Council (DDPC) ,the University of Arkansas-University Affiliated Program for Developmental Disabilities, and the University of Arkansas at Little Rock. Project activities have centered around 1) identifying the need and quality of technology provisions in the state; 2) disseminating information about appropriate technology and funding; 3) educating Arkansans about technology and advocacy; 4) development of a coordinated state plan; and 5) providing technical assistance to the DDPC.

Coordinated Planning Committee

A Coordinated Planning Committee was established on January 4, 1989, to develop a state plan for a consumer-responsive statewide system of technology-related assistance, and to develop an application for P.L. 100-407, the *Technology Related Assistance for Persons with Disabilities Act of 1988.* This committee was made up of 48 persons representing persons with disabilities, parents of persons with disabilities or their representatives, and representatives of 25 public and private agencies, including vendors of technology. Approximately 40% of the Coordinated Planning Committee consists of persons with disabilities, their families and representatives.

Study Groups. To facilitate the acquisition of information relevant to TAARK goals, six study groups were organized including Consumer Needs, Information Dissemination and Public Awareness, Legislation and Administrative Policies, National Service Delivery Models, Personnel Issues, and Funding Issues. Chaired by the members of the six groups which wrote the original grant proposal, each of these groups met independently during the first three months of the project and collected information relevant to state planning. The Project Director was present at all Study Group meetings, acting as a liaison to disseminate information among all groups.

Planning Conference. On March 13, a Planning Conference was held for all Study Groups to ensure coordinated planning activities and to share information regarding forthcoming tasks.

DeGray Lodge Retreat. On March 22-23, a 2-day retreat was held at DeGray State Park Lodge to begin development of the grant application for P.L. 100-407. At this conference, verbal reports were given by each study group regarding their findings in their designated issue areas. Written reports were subsequently submitted and compiled as a written document, *Proceedings of the DeGray Lodge Retreat,* that was made available to all Central Planning Committee members. Three national consultants were present at this activity to act as facilitators. Stipend support was made available to consumers and parents who were in attendance.

Consumer Survey. Throughout the ARTAP planning process, the involvement of individuals with disabilities, their families, and their representatives has been actively encouraged and facilitated. A primary vehicle for insuring consumer input and participation in the planning process included questionnaires distributed to over 50,000 persons with disabilities across the state by the Consumer Needs Study Group. The format for the survey included multiple choice questions on specific technology-related issues, as well as open-ended items allowing consumers to express their unique needs and to offer suggestions for those involved in the state planning processes. Ten different public and private agencies provided mailing lists for the survey generating 12,000 names. Return envelopes were included in these mailings. The survey was reproduced in *Aging Arkansas* as well as the ARC/AR newsletter reaching audiences totaling 39,000 Arkansans. An additional mailing of 1200 surveys to 6 Area Agencies on Aging to ensure a reasonable response from the elderly sector of the state. Data

analyses were conducted on 2136 returned surveys of the subset of 13,200 mailouts which included return envelopes.

Survey results. A majority of respondents reported participation in assessment or evaluation prior to obtaining assistive devices, and that they were satisfied with their devices. However, 53% of the respondents reported the need for more information regarding assistive devices/services. This need for services was supported by the high number of unmet needs reported in all 16 categories of assistive devices/ services. In some of these categories such as reading, recreation, hearing aids, using a computer, building accessibility and specialized transportation, consumers reported unmet needs more often than usage. With regard to the the costs of assistive devices/services to consumers, a majority of respondents reported expending less than $1,000 for technology devices and services last year. The largest funding sources for the assistive devices/ services reported by respondents were Medicaid/Medicare and consumers and/or their families. In the area of distance traveled to receive technology related services, a majority of respondents indicated traveling only 1-20 miles to receive their assistive devices/services, though 30% reported they had to travel 50 miles to receive such services. In the area of equipment purchasing practices, 27% of the respondents expressed having had the opportunity to purchase assistive devices on a "buy-on-time" or credit plan, and 56% reported that such a plan would be helpful to assist them in purchasing needed devices. A significant number of respondents (28%) reported that they did not receive adequate training in the use of their devices, and 48% reported that they did not have an opportunity to try out devices before being required to pay for them. A significant number of respondents (29%) voiced dissatisfaction with the length of time required for the servicing of their devices when they were in need of repair.

Professional Survey. In addition to the Consumer Survey, efforts were made during the information gathering phase of Project TAARK to secure the input of professionals from across the state regarding their views regarding technology-related needs. Each participating group in the project was requested to provide a mailing list of professionals involved in service delivery to persons with disabilities in their respective agency. In some instances, contacts were made with agencies/groups not directly involved in the planning activity, e.g., state occupational therapy, physical therapy, social work organizations, and copies of mailing labels secured. This process resulted in the names and addresses of approximately 2700 professional across the state being identified for use in the survey, representing the following agencies/groups: Advocacy Services, Arkansas Area Agencies on Aging, Arkansas Chapter of American Deafness and Rehabilitation Association, Arkansas Chapter of the American Speech and Hearing Association,Arkansas Chapter of the National Association of Social Workers, Arkansas Easter Seal Society, Arkansas Occupational Therapy Association, Arkansas Physical Therapy Association, Arkansas Rehabilitation Institute, Arkansas School for the Blind, Arkansas School for the Deaf, Arkansas Spinal Cord Commission, Association for the Hearing Impaired, Association for Retarded Citizens/Arkansas, Children's Medical Services, Coalition for the Handicapped, Department of Human Services (DHS) Division of Aging and Adult Services, DHS Division of Developmental Disabilities Services, DHS Division of Rehabilitation Services, DHS Division of Services for the Blind, and Mainstream Living. A survey instrument was also sent to all educational administrators, i.e., superintendents, principals, and special education supervisors via a mailing list provided by the Arkansas Special Education Resource Center. Since the TAARK project was cooperating with the Arkansas Highway and Transportation Department in its 5-year planning activities, surveys were sent to all recipients of transportation funds from the Highway Department.

A draft version of the Survey of Professionals instrument was prepared by the Consumer Needs Study Group and, as with the Consumer Survey, was reviewed and modified on numerous occasions by the entire Coordinated Planning Committee. The final version was printed and mailed in mid-April of 1989. Return envelopes were included in each instrument to facilitate return by recipients of the survey. A total of 444 completed professional survey forms were received as of June 30, 1989. This reflects a return rate approximately 16%.

Survey results. Responses were received from professionals who worked with individuals who represented the entire age range and all disability categories. Responses were also received from professionals who work in all regions of the state. Professionals representing all disciplines submitted responses; a surprisingly high percentage of the responses were returned by administrators. Direct Service professionals, i.e. educators, therapists and counselors, however, represented the largest number of respondents. The need for information on services and devices that was reflected in the consumer survey was also supported by the findings from the professional surveys. Professionals reported that they needed additional information in all areas of technology and related services. The following areas were reported as information needs by at least 20% of the respondents: work site

modifications, telephone usage, recreation, assistive listening devices, classroom adaptations, communication aids, aids for the visually impaired, and computers. Over 67% of the respondents also reported that they received insufficient training on technology and persons with disabilities during their college training. The following training topics were ranked as greatest need by the respondents: matching needs of persons with disabilities to technology, conducting assessments and evaluations, how technology can increase vocational options, legislation and funding, clinical experiences in technology, and communication aids. The professionals reported that they preferred to receive additional training on a local level if possible.

Consumer Committee

Informal surveys of consumers by persons involved in the planning processes, use of previous needs surveys conducted by other agencies/groups, and direct participation by consumers at all levels of information gathering and decision-making in the development of this grant proposal. The cornerstone of the ARTAP planning process was the designation of a Consumer Advisory Committee to establish priorities for the system. The Consumer Advisory Committee is a group of persons with disabilities and parents of children with disabilities who were selected from the ranks of the Coordinated Planning Committee. Once the priorities were identified by the Consumer Advisory Committee, they developed methodologies for addressing the priorities.

Priorities. Priorities established for the state plan included the following: 1) designation of the Department of Human Services, Division of Rehabilitation Services as the lead agency for the program; 2) organization of an on-going consumer review panel; 3) establishment of an information system, physically and programmatically accessible to all Arkansans;
4) establishment of specialized assistive device centers across the state using existing service delivery mechanisms; and 5) improvement of interagency cooperation in providing funding to purchase services and technology.

Arkansas Technology Access Program (ARTAP) State Grant Application

Using the priorities and recommendations provided by the Consumer Committee as a guide, numerous members of the Central Planning Committee prepared a proposal in response to P.L. 100-407. This process, reflecting multi-agency and consumer involvement, resulted in a document that delineated 9 goals to address the priorities of the Consumer Committee.

Goal 1. The focus of this goal was the development of an on-going consumer-driven technology planning and evaluation system. This will entail the designation of an Advisory Council having a majority of consumer representation appointed by the Deputy Director of DRS. The ongoing identification of barriers and solutions to such barriers as they pertain to technology utilization in the state will be a central function of this group during ARTAP implementation.

Goal 2. A major component of this goal is the creation of a Technology Information System (TIS) via an RFP process to disseminate information across the state and to evaluate the effectiveness of that system. This will entail the development of a computer-based system incorporating state-of-the-art concepts and technologies. The information system will be fully operational by October, 1990. The TIS will be staffed by 6 individuals consisting of a Program Director, three Information Specialists, an administrative assistant, and a Marketing Specialist. Information will flow outward from the TIS to the various Technology Access Centers (see Goal 3), regional technology specialists (see Goal 8), and to others accessing the system. In addition, information concerning technology that is gathered by these and other sources will be added to the system as it becomes available. .

Goal 3. This goal is designed to facilitate the development and expansion of Technology Access Centers (TACs) via RFP process across the state. Four TACs will specialize in one of the following areas: (1) communication, (2) blind and visually impaired, (3) cognitive and language habilitation, and (4) deaf and hard of hearing. Two TACs will specialize in independent living as there is a great need throughout Arkansas for these services. Except for the Independent Living TACs, each of which will serve only half of the state, all other TACs will be responsible for providing services to the entire state. The general responsibilities of each TAC will be to freely provide information and hands-on demonstration concerning targeted technology devices and approaches to consumers, parents, professionals, employers, business, and the general public. The TACs will also provide and participate in training activities concerning technology and awareness; provide technical assistance to consumers, professionals, policy makers and the TIS; and generate information concerning technology and services. In addition, TACs will provide formal evaluations and other services, such as therapy and device construction, for a fee. Finally, each TAC will be required to participate fully in the evaluation of its own activities and those of the statewide technology system. Each TAC will maintain a computerized record of

the technology and information resources that it possesses, and this database will be shared with the TIS, other TACs, Technology Specialists, and others across the state concerned with technology access.

Goal 4. The establishment of a marketing and public awareness campaign to promote the benefits and use of technology for persons with disabilities is the focus of this goal. A comprehensive marketing and public awareness plan will be developed by the Marketing Specialist and a marketing firm . Subsequently, the statewide implementation of the marketing plan will commence.

Goal 5. This goal focuses on the development of coordinated training activities for consumers, their families, professionals, employers and the general public concerning technology-related services. Based on a variety of assessment data regarding training needs, TIS staff, TAC personnel and consultants will conduct training activities in the area of assistive technology at a variety of state meetings, university-based settings, and in public and private agency settings. ARTAP will investigate and use distance teaching approaches (e.g., conference calls, teleconferences, and instructional video tapes) in order to efficiently reach statewide audiences.

Goal 6. The development of a statewide system for equipment exchange of used assistive devices is the central component of this goal. A registry of such devices will be created by ARTAP. The information regarding used assistive devices will be stored in the TIS database to be accessible to all persons in the state. Efforts will be made to publish print and audio materials relating to the availability of used assistive devices around the state and to disseminate these materials on a regional and state level to potential consumers of such used devices. The TACs, once developed, will assume joint responsibility with the TIS for the acquisition of this type of information as well as for dissemination and marketing of the program. The regional technology specialists will be given information regarding used assistive technology in their regions, and be trained to secure this information on a regional basis and to share the information with the TIS.

Goal 7. The improvement of interagency cooperation in the development of consumer-responsive policies and procedures regarding technology services is the focus of this goal. The Governor will establish an Interagency Council to work with ARTAP consisting of policy-making staff from numerous agencies. The Interagency Council will have direct communication links with the ARTAP Technology Advisory Council by having some members in common and by the appointment of a liaison between committees.

Goal 8. The establishment of a network of community-based technology specialists responsive to consumers and their families is the emphasis of this goal. A network of teams of trained technology specialists will be established in each of the 8 regions of the state. The regional technology specialists will: assist in identifying local barriers and solutions; implement those solutions; identify local training needs; conduct and sponsor training on a local level; provide technology related assistance and support to persons with disabilities, their families and professionals; and provide information to the TIS concerning local resources. In addition, the Regional Technology Specialists will assist in organizing local resources, such as the Pioneers of America and technical college students, as support for ongoing assistive device services and projects.

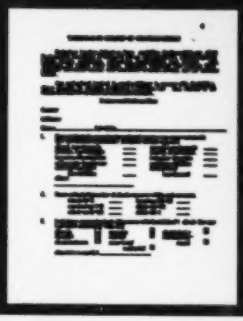
Goal 9. A User-to-User network will be developed, implemented, and evaluated to address this goal. A network of users of technology, called the User-to-User Network, will be developed across the state during the implementation of the ARTAP system. It will place consumers and their families in touch with other individuals who have used specific assistive devices and technology services. This will facilitate the development of advocacy skills, information dissemination, and needed consumer and family support. A registry of all participants in the User-to-User network will be developed employing a computer database housed at the TIS. All TACs will be contacted by ARTAP personnel and given a listing of the names, addresses, and telephone numbers of those involved in the network.

Technology Access For Arkansans (TAARK) Project

Project TAARK Goals

- Identify technology needs and service quality

Strategies Used to Gather Needs and Service Quality Information



Consumer Survey

Questionnaire Distribution

- Mailed directly to persons w/ disabilities.....12,000
- Sent to 6 Area Agencies on Aging..... 1,200
- Newsletters- "ARC/Arkansas" & "Aging Arkansas"..... 39,000

Return rate on direct mail 2,136 (18%)

Return rate on questionnaires printed in newsletters.....25 (<.001%)

Consumer Survey Summary

Need more information.....	53%
Costs of devices/services <$1000....	62%
Travel over 50 miles for services....	30%
Want a credit purchase plan.....	56%
Did not receive adequate training....	28%
Did not try out before purchase.....	48%
Wait too long for service.....	29%

Consumers' Unmet Needs

Computer usage.....	73%	Recreation.....	50%
Adapted vehicles...	57%	Special seating.....	48%
Reading, writing, & typing.....	56%	Prostheses.....	48%
		Home care.....	44%
Talking w/others...	53%	Visual aids.....	42%
Auditory aids.....	51%	Building access.....	33%
Work/training.....	50%	Self-help.....	32%
School training.....	50%	Mobility.....	26%
Telephone usage.....	50%		

Professional Survey

Questionnaire Distribution

- Mailed or in-house distribution.....2,700
- Return rate.....444 (16%)

Professional Survey Summary

Information Needs		College Training Needs	
Computers.....	30%	Vocation options....	54%
Work site design....	27%	Match. needs/tech..	42%
Auditory devices....	25%	Patterns needs.....	41%
Comm. aids.....	23%	Fund. legislation....	39%
Recreation.....	23%	Visual aids.....	37%
Visual aids.....	22%	Assess./eval.....	32%
Classroom adapt....	21%	Mobility.....	31%
Telephone usage....	20%	Home mgmnt.....	29%

Project TAARK Goals

- Identify technology needs and service quality
- Disseminate information about technology and funding

Project TAARK Goals

- Identify technology needs and service quality
- Disseminate information about technology and funding
- Conduct training about technology and advocacy

TAARK Training Activities Conducted Since January, 1989

- 11 Technology Workshops - 162 teachers, 47 parents, 14 speech therapists, 31 students, and 11 special education supervisors.
- Adapted Toy WorkShop, April 7 at Arkansas Children's Hospitas - 37 professionals and 14 consumers
- DeGray Retreat
- Technology Ethics and Advocacy Conference - 100 participants

Technology: Ethics and Advocacy

Pre-conference for the Association for Retarded Citizens/ARK 1989 Annual Conference

Thursday May 11, 1989

Izard Room at the Statehouse Convention Center

Statehouse Plaza, Little Rock

Agenda

8:30-9:00 Welcome and Introduction

9:00-9:30 Explorer Project - Increasing opportunities through technology
Sue Gobin, Director of Rehabilitation Services

9:30-10:00 Report on the Technology Access for Arkansans Project
Allen Hardenville, University of Arkansas at Little Rock- UALR

10:00-10:15 Break

10:15-11:30 Ethical Issues Related to Technology
Al Condeluci, University of Delaware

11:30-12:00 Discussion Panel

12:00-1:30 lunch on your own

THINK PEOPLE
THINK TECHNOLOGY

FIRST ANNUAL MEETING OF THE
ARKANSAS
TECHNOLOGY ACCESS PROJECT

Project TAARK Goals

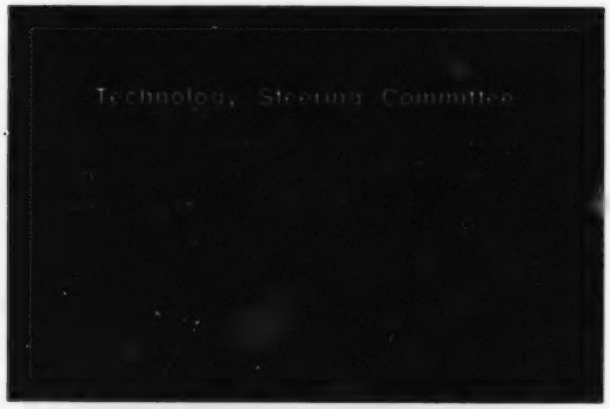
- Identify technology needs and service quality
- Disseminate information about technology and funding
- Conduct training about technology and advocacy
- Provide technical assistance to DDPC

Project TAARK Goals

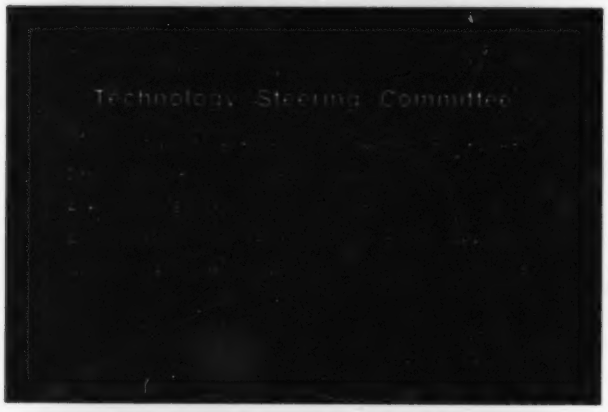
- Identify technology needs and service quality
- Disseminate information about technology and funding
- Conduct training about technology and advocacy
- Provide technical assistance to DDPC
- Develop a coordinated state plan

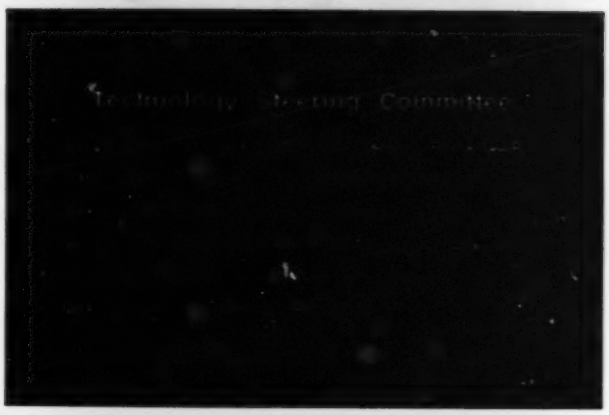
Technology Steering Committee

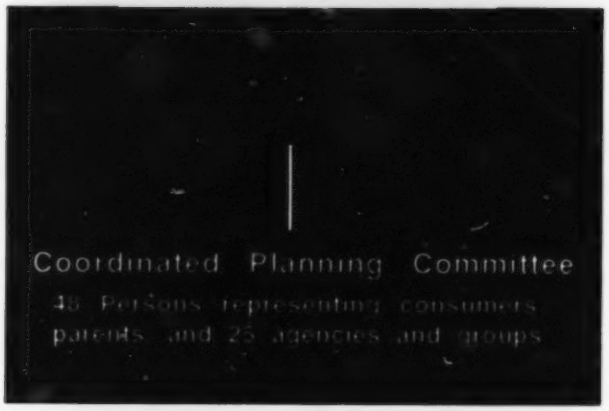
Technology Steering Committee

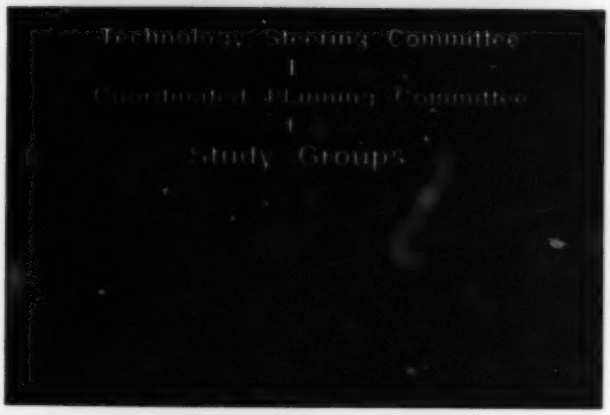

Technology Steering Committee

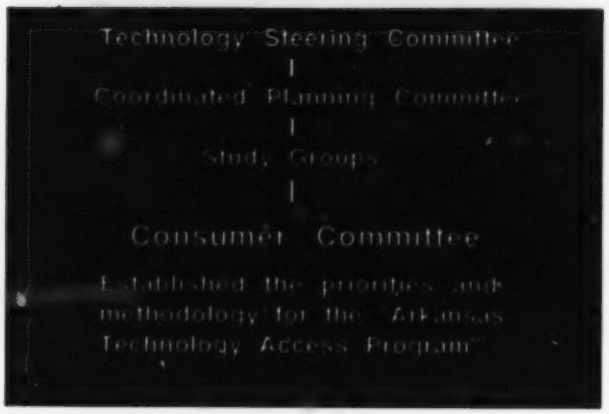
Technology Steering Committee


Technology Steering Committee


Technology Steering Committee


Coordinated Planning Committee
18 Persons representing consumers parents and 25 agencies and groups


Technology Steering Committee
Coordinated Planning Committee
Study Groups


Technology Steering Committee
Coordinated Planning Committee
Study Groups
Consumer Committee
Established the priorities and methodology for the Arkansas Technology Access Program

Arkansas Technology Access Program (ARTAP)

Goals

- Develop planning and evaluation system
- Develop information system
- Develop Technology Access Centers
- Develop assistive technology loan program
- Conduct training
- Develop equipment exchange program
- Improve inter-policy coordination
- Establish regional technology specialists
- Develop User-To-User network

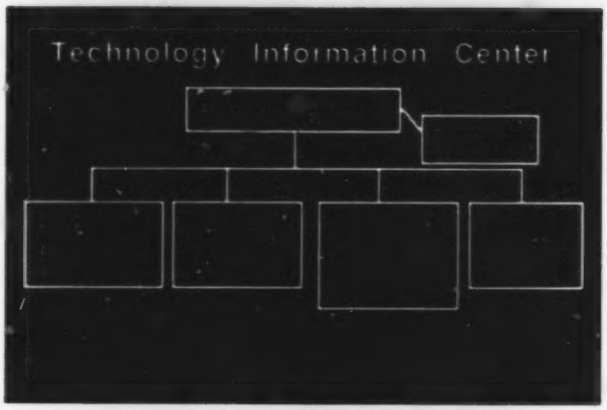
Regional Technology Specialists

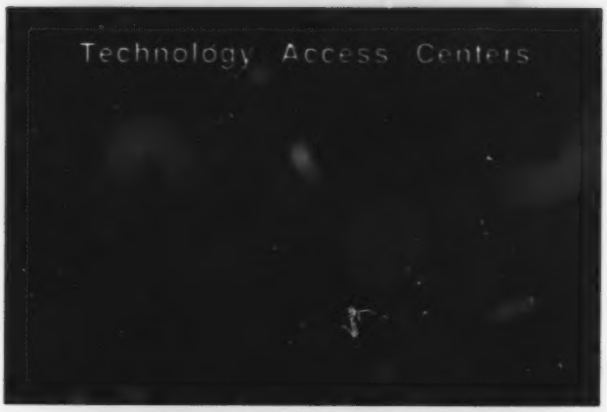
Regional Technology Specialists

Do you have any recommendations on how to improve technology services in Arkansas?

ARKANSAS
TECHNOLOGY
ACCESS
PROGRAM
Grant submitted by DHS, Division of Rehabilitation
Services to the U.S.D.E., N.I.D.R.R., July 24, 1989

Arkansas Technology Access
Program (ARTAP)
Goals


Technology Information Center


Technology Access Centers